

AMENDMENTS TO THE SPECIFICATION:

Please amend the paragraph beginning at line 9 of page 15 has been amended as follows:

In the active layer 33, a value of alloy composition y is also recognized as a factor determining the band gap energy. For ultraviolet emission at a wavelength ranging from 280 nm to 400 nm, for example, the value is selected within a range of $0 \leq y \leq 0.5$. It is also preferable that band edge discontinuity formed between both cladding layers 32, 34 is preferably adjusted within a range from 0.1 eV to 0.3 eV or around for light emitting diode, and from 0.25 eV to 0.5 eV for semiconductor laser light source. This value can be determined by selecting the individual values of alloy composition x , y and z for the p-type $\text{Mg}_x\text{Zn}_{1-x}\text{O}$ layer 34, the p type MgZnO layer 34, which can be expressed as the p-type $\text{Mg}_x\text{Zn}_{1-x}\text{O}$ layer 34 with x , the $\text{Mg}_y\text{Zn}_{1-y}\text{O}$ active layer 33, the MgZnO active layer 33, which can be expressed as the $\text{Mg}_y\text{Zn}_{1-y}\text{O}$ layer 34 with y , and the n-type $\text{Mg}_z\text{Zn}_{1-z}\text{O}$ layer 32, the n type MgZnO layer 32, which can be expressed as the n-type $\text{Mg}_z\text{Zn}_{1-z}\text{O}$ layer 32 with z .